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10/715,405

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Jean-Francois Lafon

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EXAMINER

TRAN, DALENA

ART UNIT

PAPER NUMBER

3661

DATE MAILED: 07/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/715,405

Applicant(s)

LAFON ET AL.

Examiner

Dalena Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10-12, 14-25, 27-29 and 31-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 8, 10-12, 14, 16-22, 25, 27-29, 31, 33-38 and 41-46 is/are rejected.
- 7) ☒ Claim(s) 6-7, 15, 23-24, 32, 39-40 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### **Notice to Applicant(s)**

1. This office action is responsive to the request for consideration filed on 6/23/06. The finality of the office action dated 3/23/06 has been withdrawn. Claims 1-8,10-12, 14-25, 27-29, and 31-46 are pending.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3,5,10-12,14,18-20,22,27-29, and 31, are rejected under 35 U.S.C.103(a) as being unpatentable over Briffe et al. (6,112,141) in view of Snyder et al. (6,664,989), Marks et al. (5,699,082), and Oder et al. (5,475,594).

As per claims 1 and 18, Briffe et al. disclose a dialog system for dialog between an operator of an aircraft and at least one system of the aircraft, comprising: a display configured to display at least one window including a plurality of responsive objects respectively associated with only one of multiple functions of the at least one system of the aircraft (see at least column 3, lines 6-30; and column 4, line 66 to column 5, line 13), a first cursor control device (see at least column 5, lines 35-39), and a second cursor control device (see at least column 5, lines 26-30). Briffe et al. do not explicitly disclose a continuous and discrete cursor moving mechanism. However, Snyder et al. disclose a continuous cursor moving mechanism configured to move a

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cursor in a continuous manner on the display so as to designate a responsive object (see at least column 6, lines 38-52), and a discrete cursor moving mechanism configured to move a cursor in a discrete manner on the display (see at least column 6, line 53 to column 7, line 35). Snyder et al. do not explicitly disclose responsive object by object, so as to designate a responsive object. However, Snyder et al. disclose user interface cursor control, integration of discrete button movement (see at least the abstract); and discrete events applied (see at least column 7, lines 59-65). It would have been obvious to one of ordinary skill in the art that a “discrete event” can be used to trigger successive jump (one after another), therefore, the discrete event of the cursor movement implies the cursor move in a discrete manner, responsive object by object, so as to designate a responsive object. Also, Snyder et al. disclose the pilot interacts with the map through the multifunctional keyboard (see at least column 3, line 42); it is obvious that an input keyboard create a discrete event, responsive object by object, so as to designate a responsive object.

Briffe et al., and Snyder et al. do not explicitly disclose to move the cursor in a cyclical manner. However, Marks et al. disclose to move the cursor in a cyclical manner on the display (see at least columns 6-7, lines 47-47; column 8, lines 13-30; and columns 10-11, lines 51-45).

Still in claims 1, and 18, Briffe et al., do not explicitly disclose cursor control configured to be activated during an emergency mode. However, Oder et al. disclose moving the cursor in the discrete manner on the display is activated during an emergency mode of the aircraft (see at least column 2, lines 46-54; and column 12, lines 11-33).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the cursor disclose in Briffe et al. in a continuous and discrete cursor

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moving mechanism for a pilot capable of selecting continuous or immediately a text or a graphic in a flight cockpit interface depend on each situation. Also, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the cursor to move in a cyclical manner to help it easier for step through a sequence automatically without have to go backward step by step. Also, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Briffe et al. by combining moving the cursor in the discrete manner on the display is activated during an emergency mode of the aircraft to provide an operator ability to accurately selecting a cursor location during periods of erratic vehicle moment that is easily to place the cursor in an unintended location of the display.

Also, as per claims 2, and 19, Snyder et al. disclose the continuous cursor moving mechanism is a control ball on a mouse (see at least column 3, lines 8-11). Briffe et al., and Snyder et al. do not explicitly disclose an arrow key on a keyboard. However, Snyder et al. disclose discrete cursor movement to left, right, up and down (see at least column 7, lines 61-65). It would have been obvious to one of ordinary skill in the art that the left, right, up and down control movement button can be labeled as an arrow key, because an arrow key perform a function of move to the left, right, up and down.

Also, as per claims 3 and 20, Snyder et al. disclose the first cursor control device includes a first activation mechanism configured to activate a function associated with the responsive object designated by the continuous cursor moving mechanism (see at least column 3, lines 8-18), and wherein the second cursor control device includes a second activation mechanism configured to activate a function associated with the responsive object designated by the discrete cursor moving mechanism (see at least column 3, lines 39-47; and column 7, lines 59-65).

As per claims 5 and 22, Briffe et al. do not explicitly disclose one window includes a plurality of windows. However, Snyder et al. disclose the at least one window includes a plurality of windows, and wherein the second cursor control device includes an auxiliary moving mechanism configured to move the cursor discretely from one window to another window in the plurality of windows (see at least columns 3-4, lines 39-31). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Briffe et al. by combining a plurality of windows for comparing and displaying many selection of graphical and textual of the flight plan at the same time.

As per claims 10 and 27, Briffe et al. disclose the second cursor control device includes a function operation mechanism configured to automatically move the cursor to a responsive object associated with the function operation mechanism (see at least column 10, line 58 to column 11, line 33).

As per claims 11 and 28, Briffe et al. disclose the function operation mechanism is a function key on a keyboard (see at least column 12, lines 1-8).

As per claims 12 and 29, Briffe et al. disclose the second cursor control device is a keyboard (see at least column 5, lines 26-30). Briffe et al. do not disclose the first cursor control device is a mouse. However, Snyder et al. disclose the first cursor control device is a mouse (see at least column 3, lines 10-11). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Briffe et al. by combining the first cursor control device is a mouse in order to select a desired object in the display.

Also, as per claims 14 and 31, Briffe et al. do not explicitly disclose display changing mechanism. However, Snyder et al. disclose a plurality of displays (see figures 2-3), and

wherein the first and second cursor control device respectively include first and second display changing mechanism configured to move the cursor from one display to another display in the plurality of displays (see at least columns 3-4, lines 38-46). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Briffe et al. by combining the first and second display changing mechanism for continuously selection of information in the display or select only one by one object at different screen.

4. Claims 8, and 25, are rejected under 35 U.S.C.103(a) as being unpatentable over Briffe et al. (6,112,141), Snyder et al. (6,664,989), Marks et al. (5,699,082), and Oder et al. (5,475,594) as applied to claims 5, and 22 above, and further in view of Westerman (6,404,443).

Also, as per claims 8 and 25, Briffe et al. do not disclose the auxiliary moving mechanism is a Tab key on a keyboard. However, Westerman discloses step of moving one window to another window is performed with a Tab key on a keyboard (see at least column 5, lines 5-32). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Briffe et al. by combining moving one window to another window is performed with a Tab key on a keyboard for fast and conveniently select a desired window for viewing.

5. Claims 4,16,21, 33, and 35-36, are rejected under 35 U.S.C.103(a) as being unpatentable over Briffe et al. (6,112,141), Snyder et al. (6,664,989), Marks et al. (5,699,082), and Oder et al. (5,475,594) as applied to claims 3 and 14 above, and further in view of Snyder (6,381,519).

As per claims 4 and 21, Briffe et al. disclose the second activation mechanism is an Enter key on a keyboard (see at least column 5, lines 26-30). Briffe et al., and Snyder et al. ('989) do not disclose a key on a mouse. However, Snyder ('519) discloses the first activation mechanism

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is a key on a mouse (see at least column 3, lines 24-27). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Briffe et al., and Snyder et al. ('989) by combining a key on a mouse for selecting and editing data elements appearing on the display.

As per claims 16 and 33, Briffe et al. disclose the second display changing mechanism is a key on a keyboard (see at least column 5, lines 26-30). Briffe et al., and Snyder et al. ('989) do not disclose a key on a mouse. However, Snyder ('519) discloses the first display changing mechanism is a key on a mouse (see at least column 3, lines 24-27). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Briffe et al., and Snyder et al. ('989) by combining a key on a mouse for selecting and editing data elements appearing on the display.

As per claims 35-36, Briffe et al. disclose operation of a button or a keyboard involves the action of "capture", "selection", "point and click" (see at least columns 11-12, lines 56-8), and multifunctional keyboard (see at least column 12, lines 30-65). It would have been obvious to one of ordinary skill in the art that, the action of "capture", "selection", "point and click" implies a confirming mechanism for confirming the designated responsive object either in an actuatable manner or using at least one confirmation key.

6. Claims 37-38, and 41-44, are rejected under 35 U.S.C.103(a) as being unpatentable over Snyder et al. (6,664,989), Westerman (6,404,443), and Briffe et al. (6,112,141).

As per claim 37, Snyder et al. disclose a dialog system for dialog between at least one operator of an aircraft and at least one system of said aircraft, comprising: at least two interactive windows, each of said at least two interactive windows including at least one responsive object



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associated with one of a plurality of functions of said at least one system of said aircraft (see at least columns 3-4, lines 49-65), a first moving mechanism configured to move a cursor on said interactive windows in an actuatable manner so as to designate a responsive object (see at least column 4, lines 13-18; column 4, lines 31-52, and figure 3, button 306); a second moving mechanism configured to move said cursor on said interactive windows in a discrete manner (see at least columns 7-8, lines 61-14). Snyder et al. disclose **three control moving mechanism, such as, cursor control device** (column 3, line 41), mechanical **button control** (column 3, line 42), and the **multifunction keyboard** (column 3, line 42), all these control mechanism using for controlling display, and dialogue windows (column 3, lines 45-48). Also, ('989) disclose button (306) in figure 3, using to select windows displayed. Therefore, it would have been obvious to one of ordinary skill in the art that one can using a key on a **multifunction keyboard**, such as a tab key; or a selecting button to move cursor from window to window, and a key to select represents an auxiliary displacement key. Furthermore, it is well known in the art that "auxiliary displacement key" can be a select tab, or a tab key on a keyboard, as disclose in Westerman ('443), column 5, lines 26-32.

Snyder et al. do not explicitly disclose designate a responsive object. However, Snyder et al. disclose user interface cursor control device (CCD) pointer 104, mechanical button control (see at least column 3, lines 39-41), integration of discrete button movement (see at least the abstract); and discrete events applied (see at least column 7, lines 59-65). It would have been obvious to one of ordinary skill in the art that when point and click on the control button, a responsive object is designated; also, each discrete button action designate responsive object by responsive object. Snyder et al. also do not explicitly disclose a confirming key. However,

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Briffe et al. disclose operation of a button or a keyboard involves the action of “capture”, “selection”, “point and click” (see at least columns 11-12, lines 56-8), and multifunctional keyboard (see at least column 12, lines 30-65). It would have been obvious to one of ordinary skill in the art that, the action of “capture”, “selection”, “point and click” implies a confirming mechanism for confirming the designated responsive object either in an actuatable manner or using at least one confirmation key. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Snyder et al. by combining a confirming mechanism to select and a desired object in the display; also, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Snyder et al. by combining moving one window to another window is performed with a Tab key on a keyboard for fast and conveniently select a desired window for viewing.

As per claim 38, Briffe et al. disclose a fourth moving mechanism configured to move said cursor directly onto a responsive object associated with a function using a function key (see at least columns 7-8, lines 58-43; and column 9, lines 9-41).

As per claims 41, and 43, Snyder et al. disclose confirm the designated responsive object in an actuatable manner (see column 4, lines 13-18; column 4, lines 31-52; and figure 3, button 306).

As per claims 42, and 44, Snyder et al. also do not explicitly disclose a confirming key. However, Briffe et al. disclose operation of a button or a keyboard involves the action of “capture”, “selection”, “point and click” (see at least columns 11-12, lines 56-8), and multifunctional keyboard (see at least column 12, lines 30-65). It would have been obvious to one of ordinary skill in the art that, the action of “capture”, “selection”, “point and click” implies

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a confirming mechanism for confirming the designated responsive object either in an actuatable manner or using at least one confirmation key. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Snyder et al. by combining a confirming mechanism to select and a desired object in the display.

7. Claims 17, 34, and 45-46, are rejected under 35 U.S.C.103(a) as being unpatentable over Briffe et al. (6,112,141), Snyder et al. (6,664,989), Westerman (6,404,443), Marks et al. (5,699,082), and Oder et al. (5,475,594) as applied to claims 1, 18, and 37-38 above, and further in view of Muller et al. (6,072,473).

As per claims 17, 34, and 45-46, Briffe et al., Snyder et al., Marks et al., and Oder et al. do not disclose eight displays. However, Muller et al. disclose six displays (see column 3, line 36 to column 4, line 5), also Muller et al. disclose **plurality** of display allow multiple members of aircraft crew to share control of common flight information display areas (see the abstract). Eventhough, Muller et al. only has six displays. However, it is obvious to one of ordinary skill in the art that the suggest “plurality” means more than one, and means several, and it can be 3, 4, 6, 8, or 10, etc... Therefore, it is obvious that the display can include eight displays, of which three displays are for a pilot of the aircraft, three other displays are for the co-pilot, and two displays are for common use by the pilot and co-pilot. It is obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Briffe et al., Snyder et al., Marks et al., and Oder et al. by combining 8 displays enabling the pilot to dialogue with multiple display information of use for piloting efficiently and safely.

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8. Claims 6-7, 15, 23-24, 32, and 39-40 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### Remarks

9. Applicant's argument filed on 6/23/06 has been fully considered. The update of the rejection as above.

In response to the arguments on pages 3-6, about claims 1, and 18, Oder system does not describe a second cursor control device, and Oder system is forced to select a list of multiple tasks that will be executed, rather than a single function to be executed. This response is repeat as the final rejection, and the rejection is stay the same as the final rejection.

The primary reference, Briffe et al. disclose **both** cursor control devices (column 5, lines 26-39), the first cursor control device including trackballs, touch pad, joystick, or other type of cursor control (see column 5, lines 35-39), the second cursor control device including a keyboard has selected keys (see column 5, lines 26-30). Eventhough, Briffe et al. do not explicitly disclose continuous, and discrete moving mechanism, and cyclical manner, however, it would have been obvious to one of ordinary skill in the art that, controlling the trackballs or a touch pad represents a continuous moving mechanism, and select a key in a keyboard represent a discrete moving mechanism and cyclical manner. Furthermore, controlling the trackballs or a touch pad represents a continuous moving mechanism, or select a key in a keyboard represent a discrete moving mechanism and cyclical manner are well known in the art. Therefore, Snyder et al. ('989), Marks et al. ('082), and Oder et al. ('594) references are combining to show it is well known in the art.

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Oder et al. cited for disclose moving the cursor in the discrete manner (such as the activation of a key, this represent the applicant's second cursor control device) on the display is activated during an emergency mode of the aircraft (column 2, lines 46-54; and column 12, lines 11-33).

Furthermore, Oder et al. also disclose another control mechanism, such as, when select cursor (20) figure 6, to activate a cursor (column 5, lines 40-45; column 10, lines 8-12).

Oder et al. system does not forced the pilot to select a list of multiple tasks. However Oder et al. disclose the system allow the pilot the **choice of selecting** another list (column 12, line 24).

Also, Oder et al. disclose "the **activation of a key** making it possible to position a marker which **designates the first task** of the list to be carried out, thus provoking the launching of processing of the list" (column 2, lines 46-49), and "the movement of marker **from one task to another following activation of a key** in order to validate the task" (column 2, lines 50-54). It would have been obvious to one of ordinary skill in the art that all these cited paragraph implies a single function to be executed. Furthermore, the activation of a key to position a marker, and the movement of marker from one task to another following activation of a key, implies moving the cursor in the discrete manner because one action to perform a task at a time, and Oder et al. system also use a key activated during an abnormal event (this implies an emergency mode).

Therefore, Oder et al. does disclose an activate of a select key represent the applicant's second cursor control device.

Also, Marks et al. ('082) does disclose two cursor control mechanism, keyboard control (see at least column 3, line 48), and mouse or stick control device (see at least column 3, lines 53-54).

The motivation for combining the references are already cited in the final office action.

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In response to the arguments on page 7, claim 37, Snyder et al. ('989) disclose **three control moving mechanism, such as, cursor control device** (column 3, line 41), **mechanical button control** (column 3, line 42), and the **multifunction keyboard** (column 3, line 42), all these control mechanism using for controlling display, and dialogue windows (column 3, lines 45-48). Also, ('989) disclose button (306) in figure 3, using to select windows displayed. Therefore, it would have been obvious to one of ordinary skill in the art that one can using a key on a **multifunction keyboard**, such as a tab key; or a selecting button to move cursor from window to window, and a key to select represents an auxiliary displacement key. Furthermore, it is well known in the art that "auxiliary displacement key" can be a select tab, or a tab key on a keyboard as disclose in Westerman ('443), column 5, lines 26-32. Westerman ('443) is a new cited for claim 37 in this office action, as cited in item 6 above.

Claims 6-7, 15, 23-24, 32, and 39-40 are changed in this rejection, as cited in item 8 above.

There are no new references in this rejection.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalena Tran whose telephone number is 571-272-6968. The examiner can normally be reached on M-F 6:30 AM-4:00 PM), off every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on 571-272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Patent Examiner

Dalena Tran

A handwritten signature in black ink, appearing to read 'Dalena Tran', with a stylized flourish extending to the right.

July 5, 2006